1811495

GC/MS Volatiles:
The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The sample was also analyzed for Gasoline Range Organics (GRO).

All acceptance criteria were met.

Dissolved Gasses:
The sample was prepared and analyzed according to method RSK-175 procedures and the current revision of SOP 449.

All acceptance criteria were met.

DRO:
The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

BART:
The Biological Activity Reaction Test was completed with the Iron-Related Bacteria, Sulfate-Reducing Bacteria, and Slime-Forming Bacteria kit manufactured by Hach Company. The analysis was performed following the manufacturer provided instructions. If the target analyte is not detected (absent), then the sample will be reported with “ND” in the result field. If the target analyte is detected (present), then the sample will be reported with the estimated colony forming units/mL (cfu/mL) as provided by the manufacturer based on the day reaction was observed.

Metals:
The sample was analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures. Analysis by ICPMS followed method 200.8 and the current revision of SOP 827.

The sample was to be analyzed for dissolved metals. The sample was filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than two prior to analysis.

All acceptance criteria were met.

Inorganics:
The sample was analyzed following MCAWW, EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:

Analyte	Method	SOP #
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H^+ B	1126
Total phosphorus	365.2	1119
Specific conductance	SM2510B	1128
TDS	SM2540C	1101
Bromide	300.0 Revision 2.1	1113
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Total Nitrates	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

Client: Western Water and Land, Inc. **Date:** *18-Dec-18*
Project: RU 11-7 COA **Work Order:** 1811495
Sample ID: Beaver Cr 2 **Lab ID:** 1811495-1
Legal Location: **Matrix:** SURFACEWAT
Collection Date: 11/28/2018 09:45 **Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate			**SM2320B**		Prep Date: **12/3/2018**	PrepBy: **AEJ**
BICARBONATE AS CaCO3	**170**		**20**	**MG/L**	1	12/3/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	12/3/2018
TOTAL ALKALINITY AS CaCO3	**170**		**20**	**MG/L**	1	12/3/2018
Biological Activity Reaction Test			**BART**		Prep Date: **11/30/2018**	PrepBy: **JML**
IRON RELATED BACTERIA	**9000**		**1**	**cfu/ml**	1	12/11/2018
SLIME FORMING BACTERIA	**66500**		**1**	**cfu/ml**	1	12/11/2018
SULFATE REDUCING BACTERIA	**100000**		**1**	**cfu/ml**	1	12/11/2018
Diesel Range Organics			**SW8015M**		Prep Date: **12/3/2018**	PrepBy: **LML**
Diesel Range Organics	ND		0.52	MG/L	1	12/3/2018 17:42
Surr: O-TERPHENYL	*103*		*63-126*	*%REC*	1	12/3/2018 17:42
Dissolved Gasses			**RSK175**		Prep Date: **12/10/2018**	PrepBy: **LML**
METHANE	ND		1	UG/L	1	12/10/2018 11:37
ETHANE	ND		2	UG/L	1	12/10/2018 11:37
PROPANE	ND		1	UG/L	1	12/10/2018 11:37
GC/MS Volatiles			**SW8260_25**		Prep Date: **12/4/2018**	PrepBy: **JXK**
BENZENE	ND		1	UG/L	1	12/4/2018 18:55
TOLUENE	ND		1	UG/L	1	12/4/2018 18:55
ETHYLBENZENE	ND		1	UG/L	1	12/4/2018 18:55
M+P-XYLENE	ND		1	UG/L	1	12/4/2018 18:55
O-XYLENE	ND		1	UG/L	1	12/4/2018 18:55
TOTAL XYLENES	ND		1	UG/L	1	12/4/2018 18:55
Surr: 4-BROMOFLUOROBENZENE	*102*		*85-115*	*%REC*	1	12/4/2018 18:55
Surr: DIBROMOFLUOROMETHANE	*113*		*84-118*	*%REC*	1	12/4/2018 18:55
Surr: TOLUENE-D8	*95*		*85-115*	*%REC*	1	12/4/2018 18:55
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	12/4/2018 18:55
Ion Chromatography			**EPA300.0**		Prep Date: **11/29/2018**	PrepBy: **HMA**
BROMIDE	ND		0.2	MG/L	1	11/29/2018 14:55
CHLORIDE	**1.6**		**0.2**	**MG/L**	1	11/29/2018 14:55
FLUORIDE	**0.089**	J	**0.1**	**MG/L**	1	11/29/2018 14:55
NITRATE/NITRITE AS N	**0.14**	J	**0.1**	**MG/L**	1	11/29/2018 14:55
NITRATE AS N	**0.14**	J	**0.2**	**MG/L**	1	11/29/2018 14:55
NITRITE AS N	ND		0.1	MG/L	1	11/29/2018 14:55
SULFATE	**21**		**1**	**MG/L**	1	11/29/2018 14:55
Dissolved Metals by 200.8			**EPA200.8**		Prep Date: **12/6/2018**	PrepBy: **JML**
BARIUM	**0.067**		**0.001**	**MG/L**	10	12/8/2018 14:53
BORON	**0.02**	J	**0.05**	**MG/L**	10	12/8/2018 14:53
CALCIUM	**45**		**1**	**MG/L**	10	12/8/2018 14:53
IRON	**0.025**	J	**0.1**	**MG/L**	10	12/8/2018 14:53
MAGNESIUM	**10**		**0.1**	**MG/L**	10	12/8/2018 14:53
MANGANESE	**0.00068**	J	**0.002**	**MG/L**	10	12/8/2018 14:53
POTASSIUM	**0.9**	J	**1**	**MG/L**	10	12/8/2018 14:53
SELENIUM	**0.00015**	J	**0.001**	**MG/L**	10	12/8/2018 14:53
SODIUM	**15**		**1**	**MG/L**	10	12/8/2018 14:53

Client:	Western Water and Land, Inc.	**Date:**	*18-Dec-18*
Project:	RU 11-7 COA	**Work Order:**	1811495
Sample ID:	Beaver Cr 2	**Lab ID:**	1811495-1
Legal Location:		**Matrix:**	SURFACEWAT
Collection Date:	11/28/2018 09:45	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
STRONTIUM	**0.3**		**0.001**	**MG/L**	10	12/8/2018 14:53
pH			**SM4500-H**	Prep Date:	**11/30/2018**	PrepBy: **AEJ**
PH	**8.14**		**0.1**	**pH**	1	11/30/2018
Specific Conductance in Water			**SM2510B**	Prep Date:	**11/30/2018**	PrepBy: **HMA**
SPECIFIC CONDUCTIVITY	**353**		**1**	**umhos/cm**	1	11/30/2018
Total Dissolved Solids			**SM2540C**	Prep Date:	**12/4/2018**	PrepBy: **AEJ**
TOTAL DISSOLVED SOLIDS	**210**		**20**	**MG/L**	1	12/5/2018
Total Phosphorus as P			**EPA365.2**	Prep Date:	**12/11/2018**	PrepBy: **HMA**
TOTAL PHOSPHORUS	**0.025**	J	**0.05**	**MG/L**	1	12/11/2018

Client:	Western Water and Land, Inc.	**Date:**	*18-Dec-18*
Project:	RU 11-7 COA	**Work Order:**	1811495
Sample ID:	Beaver Cr 2	**Lab ID:**	1811495-1
Legal Location:		**Matrix:**	SURFACEWAT
Collection Date:	11/28/2018 09:45	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
G - Sample density differs by more than 15% of LCS density.
D - DER is greater than Control Limit

M - Requested MDC not met.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

QC BATCH REPORT

Batch ID: **HC181203-81-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS Sample ID: **HC181203-81** Units: **MG/L** Analysis Date: **12/3/2018 19:30**

Client ID: Run ID: **HC181203-8A** Prep Date: **12/3/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.69	0.495	7.74		99	36-150				20	
Surr: O-TERPHENYL	1.59		1.55		103	63-126					

MB Sample ID: **HC181203-81** Units: **MG/L** Analysis Date: **12/3/2018 16:16**

Client ID: Run ID: **HC181203-8A** Prep Date: **12/3/2018** DF: **1**

Analyte	Result	ReportLimit	%REC	Control Limit	Qual
Diesel Range Organics	ND	0.5			
Surr: O-TERPHENYL	1.61		103	63-126	

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **HC181210-91-1** Instrument ID **MEE-1** Method: **RSK175**

LCS Sample ID: **HC181210-91** Units: **UG/L** Analysis Date: **12/10/2018 11:27**

Client ID: Run ID: **HC181210-9A** Prep Date: **12/10/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	157	1	142		110	80-120				25	
ETHANE	284	2	267		107	80-120				25	
PROPANE	384	1	391		98	80-120				25	

LCSD Sample ID: **HC181210-91** Units: **UG/L** Analysis Date: **12/10/2018 12:18**

Client ID: Run ID: **HC181210-9A** Prep Date: **12/10/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	156	1	142		110	80-120		157	1	25	
ETHANE	280	2	267		105	80-120		284	2	25	
PROPANE	370	1	391		95	80-120		384	4	25	

MB Sample ID: **HC181210-91** Units: **UG/L** Analysis Date: **12/10/2018 11:35**

Client ID: Run ID: **HC181210-9A** Prep Date: **12/10/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
METHANE	ND	1	
ETHANE	ND	2	
PROPANE	ND	1	

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **IP181206-5-1** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS Sample ID: **IM181206-5** Units: **MG/L** Analysis Date: **12/8/2018 14:35**

Client ID: Run ID: **IM181208-10A7** Prep Date: **12/6/2018** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.0992	0.001	0.1		99	85-115				20	
BORON	1.07	0.05	1		107	85-115				20	
CALCIUM	10.8	1	10		108	85-115				20	
IRON	5.15	0.1	5		103	85-115				20	
MAGNESIUM	10.4	0.1	10		104	85-115				20	
MANGANESE	0.102	0.002	0.1		102	85-115				20	
POTASSIUM	5.24	1	5		105	85-115				20	
SELENIUM	0.0901	0.001	0.1		90	85-115				20	
SODIUM	10.5	1	10		105	85-115				20	
STRONTIUM	0.1	0.001	0.1		100	85-115				20	

LCSD Sample ID: **IM181206-5** Units: **MG/L** Analysis Date: **12/8/2018 14:38**

Client ID: Run ID: **IM181208-10A7** Prep Date: **12/6/2018** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.104	0.001	0.1		104	85-115		0.0992	5	20	
BORON	1.07	0.05	1		107	85-115		1.07	0	20	
CALCIUM	10.9	1	10		109	85-115		10.8	1	20	
IRON	5.49	0.1	5		110	85-115		5.15	7	20	
MAGNESIUM	10.7	0.1	10		107	85-115		10.4	3	20	
MANGANESE	0.0997	0.002	0.1		100	85-115		0.102	2	20	
POTASSIUM	5.11	1	5		102	85-115		5.24	2	20	
SELENIUM	0.0985	0.001	0.1		98	85-115		0.0901	9	20	
SODIUM	10.2	1	10		102	85-115		10.5	3	20	
STRONTIUM	0.103	0.001	0.1		103	85-115		0.1	3	20	

QC BATCH REPORT

Batch ID: **IP181206-5-1** Instrument ID **ICPMS2** Method: **EPA200.8**

MB Sample ID: **FP181129-5** Units: **MG/L** Analysis Date: **12/8/2018 14:29**

Client ID: Run ID: **IM181208-10A7** Prep Date: **12/6/2018** DF: **10**

Analyte	Result	ReportLimit	Qual
BARIUM	0.00019	0.001	J
BORON	0.0036	0.05	J
CALCIUM	ND	1	
IRON	0.0059	0.1	J
MAGNESIUM	ND	0.1	
MANGANESE	0.00014	0.002	J
POTASSIUM	ND	1	
SELENIUM	ND	0.001	
SODIUM	ND	1	
STRONTIUM	ND	0.001	

The following samples were analyzed in this batch: 1811495-1

Batch ID: **VL181204-4-1** Instrument ID **HPV4** Method: **SW8260_25**

LCS Sample ID: **VL181204-4** Units: **%REC** Analysis Date: **12/4/2018 15:27**

Client ID: Run ID: **VL181204-4A** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25		25		100	85-115					
Surr: DIBROMOFLUOROMETHANE	28.4		25		114	84-118					
Surr: TOLUENE-D8	23.6		25		95	85-115					
BENZENE	10.4	1	10		104	83-117				20	
TOLUENE	9.22	1	10		92	82-113				20	
ETHYLBENZENE	9.5	1	10		95	81-113				20	
M+P-XYLENE	18.9	1	20		94	82-115				20	
O-XYLENE	9.32	1	10		93	81-115				20	

LCSD Sample ID: **VL181204-4** Units: **%REC** Analysis Date: **12/4/2018 15:49**

Client ID: Run ID: **VL181204-4A** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.5		25		98	85-115			2		
Surr: DIBROMOFLUOROMETHANE	28.1		25		112	84-118			1		
Surr: TOLUENE-D8	23.3		25		93	85-115			1		
BENZENE	10	1	10		100	83-117		10.4	4	20	
TOLUENE	8.85	1	10		89	82-113		9.22	4	20	
ETHYLBENZENE	9.16	1	10		92	81-113		9.5	4	20	
M+P-XYLENE	18.1	1	20		90	82-115		18.9	4	20	
O-XYLENE	8.99	1	10		90	81-115		9.32	4	20	

MB Sample ID: **VL181204-4** Units: **%REC** Analysis Date: **12/4/2018 18:09**

Client ID: Run ID: **VL181204-4A** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	%REC	Control Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.8		103	85-115	
Surr: DIBROMOFLUOROMETHANE	28		112	84-118	
Surr: TOLUENE-D8	23.5		94	85-115	
BENZENE	ND	1			
TOLUENE	ND	1			
ETHYLBENZENE	ND	1			
M+P-XYLENE	ND	1			
O-XYLENE	ND	1			
TOTAL XYLENES	ND	1			

The following samples were analyzed in this batch: 1811495-1

Client: Western Water and Land, Inc.
Work Order: 1811495
Project: RU 11-7 COA

QC BATCH REPORT

Batch ID: **VL181204-4-2** Instrument ID **HPV4** Method: **SW8260_25**

LCS Sample ID: **VL181204-8** Units: **UG/L** Analysis Date: **12/4/2018 17:00**
Client ID: Run ID: **VL181204-4A** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1090	100	1000		109	80-120				20	

LCSD Sample ID: **VL181204-8** Units: **UG/L** Analysis Date: **12/4/2018 17:23**
Client ID: Run ID: **VL181204-4A** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1050	100	1000		105	80-120		1090	4	20	

MB Sample ID: **VL181204-4** Units: **UG/L** Analysis Date: **12/4/2018 18:09**
Client ID: Run ID: **VL181204-4A** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
GASOLINE RANGE ORGANICS	ND	100	

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **AK181203-1-1** Instrument ID **NONE** Method: **SM2320B**

LCS Sample ID: **AK181203-1** Units: **MG/L** Analysis Date: **12/3/2018**
Client ID: Run ID: **AK181203-1A1** Prep Date: **12/3/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	98.9	5	100		99	85-115				15	

MB Sample ID: **AK181203-1** Units: **MG/L** Analysis Date: **12/3/2018**
Client ID: Run ID: **AK181203-1A1** Prep Date: **12/3/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
BICARBONATE AS CaCO3	ND	5	
CARBONATE AS CaCO3	ND	5	
TOTAL ALKALINITY AS CaCO3	ND	5	

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **IC181129-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS Sample ID: **IC181129-1** Units: **MG/L** Analysis Date: **11/29/2018 13:05**

Client ID: Run ID: **IC181129-1A2** Prep Date: **11/29/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	10	0.2	10		100	90-110				15	
CHLORIDE	10.2	0.2	10		102	90-110				15	
FLUORIDE	5.05	0.1	5		101	90-110				15	
NITRATE AS N	10.2	0.2	10		102	90-110				15	
NITRITE AS N	5.01	0.1	5		100	90-110				15	
SULFATE	50.9	1	50		102	90-110				15	

MB Sample ID: **IC181129-1** Units: **MG/L** Analysis Date: **11/29/2018 13:18**

Client ID: Run ID: **IC181129-1A2** Prep Date: **11/29/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
BROMIDE	ND	0.2	
CHLORIDE	ND	0.2	
FLUORIDE	ND	0.1	
NITRATE AS N	ND	0.2	
NITRITE AS N	ND	0.1	
SULFATE	ND	1	

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **PH181130-1-3** Instrument ID **pH-1** Method: **SM4500-H**

CCV Sample ID: **CCV1** Units: **pH** Analysis Date: **11/30/2018**
Client ID: Run ID: **PH181130-1A1** Prep Date: **11/30/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	6.91	0.1	7			6.9-7.1					

ICV Sample ID: **ICV** Units: **pH** Analysis Date: **11/30/2018**
Client ID: Run ID: **PH181130-1A1** Prep Date: **11/30/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	6.94	0.1	7			6.9-7.1					

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **SC181130-1-1** Instrument ID **pH-1** Method: **SM2510B**

CCV Sample ID: **CCV** Units: **umhos/cm** Analysis Date: **11/30/2018**
Client ID: Run ID: **SC181130-1A1** Prep Date: **11/30/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1470	1	1410		104	271.7-1554					

ICV Sample ID: **ICV** Units: **umhos/cm** Analysis Date: **11/30/2018**
Client ID: Run ID: **SC181130-1A1** Prep Date: **11/30/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	727	1	718		101	646.2-789.7					

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **TD181204-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS Sample ID: **TD181204-1** Units: **MG/L** Analysis Date: **12/5/2018**
Client ID: Run ID: **TD181205-1A1** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	392	20	400		98	85-115				5	

MB Sample ID: **TD181204-1** Units: **MG/L** Analysis Date: **12/5/2018**
Client ID: Run ID: **TD181205-1A1** Prep Date: **12/4/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
TOTAL DISSOLVED SOLIDS	ND	20	

The following samples were analyzed in this batch: 1811495-1

QC BATCH REPORT

Batch ID: **TP181211-1-2** Instrument ID **Spec** Method: **EPA365.2**

LCS Sample ID: **TP181211-1** Units: **MG/L** Analysis Date: **12/11/2018**
Client ID: Run ID: **TP181211-1A2** Prep Date: **12/11/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.487	0.05	0.5		97	80-120				20	

MB Sample ID: **TP181211-1** Units: **MG/L** Analysis Date: **12/11/2018**
Client ID: Run ID: **TP181211-1A2** Prep Date: **12/11/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
TOTAL PHOSPHORUS	ND	0.05	

The following samples were analyzed in this batch: 1811495-1